ID	535
Curricular Unit	Work Physiology
Regent	Fernando Manuel da Cruz Duarte Pereira
Learning Outcomes	To be updated
Syllabus	Introduction. Fundamental Concepts. Motor task analysis. Workload and adaptation. Bioenergetics. Energy for Physical Activity. Energy Value of Food. Fatigue. Measurement of Human Energy Expenditure. Methods and research in the field. Pulmonary Ventilation adaptations. Gas Exchange and Transport. Blood. Cardiovascular system adaptation. Neural muscular adaptations. Endocrine system adaptation. Thermoregulation. Exercise and thermal stress. Special populations. Health and disease. Functional assessment. Ergo-spirometry.
Evaluation	This curricular unit is structured in two separated but integrated, courses: Theoretical and practical. Each course has detailed information in the program, describing the major aims, general objectives, behavioural skills, assessment and references. The practical course is organized in five "laboratories". Each laboratory aims at a set of evaluation procedures related to the main physiological functions. The students work in groups and teams. As such they performed all the necessary tasks to physiological evaluation measurements, from organization, data collection and interpretation and formal reporting according to technical and scientifically standards. This lab report, done in team project, has the main weight in the practical course evaluation. All the ancillary material are free and can be downloaded from the discipline`s web site.
Bibliography	McArdle, W. D., Katch, F. I., Katch, V.I. (2001). Exercise Physiology – Energy, Nutrition, and Human performance (5ª Ed.). Lippincott Williams & Wilkins, Philadelphia. Astrand, O., Rodahl, K., Dahl, H., Stromme, S.. (2003) Textbook of Work Physiology. 4 ed. Human Kinetics. Champaign. Ill. Evaluation of human Work (1990). John R. wilson e E. Nigel Corlett. Taylor & Francis. London. American College of Sports Medicine. (2000) Guidelines for Exercise Testing and Prescription. 6ª Ed.. Baltimore, Williams & Williams.